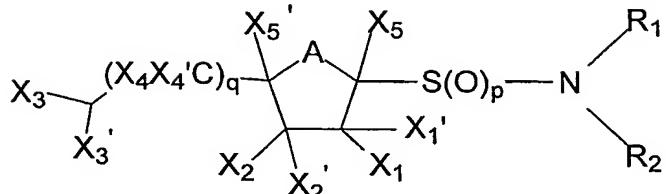


Claims:

1. A compound of general formula (I) :

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wherein R₁ and R₂ are independently selected from the group consisting of hydrogen, optionally substituted alkyl which may be interrupted by one or more heteroatoms or functional groups selected from the group consisting of O, S, -N=, NR, and -(Y)_mC=(Z)(T)_n-, optionally substituted alkenyl which may be interrupted by one or more heteroatoms or functional groups selected from the group consisting of O, S, -N=, NR, and -(Y)_mC=(Z)(T)_n-, 10 optionally substituted aralkyl which may be interrupted within the alkyl moiety by one or more heteroatoms or functional groups selected from the group consisting of O, S, -N=, NR, and -(Y)_mC=(Z)(T)_n-, optionally substituted heterocyclic, 15 optionally substituted aryl, optionally substituted acyl and a carbohydrate moiety;

or R₁ and R₂ together with the nitrogen atom from which they depend form a saturated or unsaturated, 20 optionally substituted heterocyclic group which may include additional heteroatoms selected from the group consisting of O, N and S;

A is selected from the group consisting of O, S, SO, SO₂, Se, Te, NR₈, CR₉R'₉, N->O and C(O);

X₁ is selected from the group consisting of OR₃, 30 SR₃, NR₃R'₃, hydrogen, halogen, -(Y)_mC=(Z)(T)_nR₃, -N(C=(Z)(T)_nR₃)₂, N₃, CN, OCN, SCN, OSO₃R₃, OSO₂R₃, OPO₃R₃R'₃, OPO₂R₃R'₃, S(O)R₃, S(O)₂R₃, S(O)₂OR₃, PO₃R₃R'₃, NR₃NR'₃R''₃, SNR₃R'₃, NR₃SR'₃, SSR₃ and R₃, or is an oxo group, =S, =NOR₃ or =CR₃R'₃ and X₁' is absent, or X₁ is C=(Z) and R₂ is

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bonded thereto so as to form a cyclic moiety -

$C=(Z)NR_1S(O)_p-$;

X_2 is selected from the group consisting of OR_4 , SR_4 , $NR_4R'4$, hydrogen, halogen, $-(Y)_mC=(Z)(T)_nR_4$, -
 5 $N(C=(Z)(T)_nR_4)_2$, N_3 , CN , OCN , SCN , OSO_3R_4 , OSO_2R_4 , $OPO_3R_4R'4$, $OPO_2R_4R'4$, $S(O)R_4$, $S(O)_2R_4$, $S(O)_2OR_4$, $PO_3R_4R'4$, $NR_4NR'4R''4$, $SNR_4R'4$, $NR_4SR'4$, SSR_4 and R_4 , or is an oxo group, $=S$, $=NOR_4$ or $=CR_4R'4$ and X_2' is absent;

X_3 and X_3' are independently selected from the group consisting of OR_5 , SR_5 , $NR_5R'5$, hydrogen, halogen, -
 10 $(Y)_mC=(Z)(T)_nR_5$, $-N(C=(Z)(T)_nR_5)_2$, N_3 , CN , OCN , SCN , OSO_3R_5 , OSO_2R_5 , $OPO_3R_5R'5$, $OPO_2R_5R'5$, $S(O)R_5$, $S(O)_2R_5$, $S(O)_2OR_5$, $PO_3R_5R'5$, $NR_5NR'5R''5$, $SNR_5R'5$, $NR_5SR'5$, SSR_5 and R_5 , or X_3 is an oxo group, $=S$, $=NOR_5$ or $=CR_5R'5$ and X_3' is absent;

15 X_4 is selected from the group consisting of OR_6 , SR_6 , $NR_6R'6$, hydrogen, halogen, $-(Y)_mC=(Z)(T)_nR_6$, -
 $N(C=(Z)(T)_nR_6)_2$, N_3 , CN , OCN , SCN , OSO_3R_6 , OSO_2R_6 , $OPO_3R_6R'6$, $OPO_2R_6R'6$, $S(O)R_6$, $S(O)_2R_6$, $S(O)_2OR_6$, $PO_3R_6R'6$, $NR_6NR'6R''6$, $SNR_6R'6$, $NR_6SR'6$, SSR_6 and R_6 , or is an oxo group, $=S$, $=NOR_6$ or $=CR_6R'6$ and X_4' is absent;

20 X_5 is selected from the group consisting of hydrogen, CN , $-C=(Z)(T)_nR_{11}$, $S(O)R_{11}$, $S(O)_2R_{11}$, $S(O)_2OR_{11}$, $PO_3R_{11}R'_{11}$, optionally substituted alkyl, optionally substituted alkaryl, optionally substituted aryl,
 25 optionally substituted aralkyl, and optionally substituted acyl;

30 X_1' , X_2' , X_4' and X_5' are the same or different and are selected from the group consisting of hydrogen, CN , optionally substituted alkyl, optionally substituted alkaryl, optionally substituted aryl, optionally substituted aralkyl, and optionally substituted acyl;

35 or one of X_1 and X_2 , X_2 and X_5' , X_5' and A when A contains a carbon or nitrogen atom, X_5 and A when A contains a carbon or nitrogen atom, and X_5 and X_1 together constitute a double bond, or X_5' and X_4 or X_3 and X_4 together constitute a double bond, or R_1 and X_1 , R_2 and X_1 , R_1 and X_2 , R_2 and X_2 , R_1 and X_5 , R_2 and X_5 , R_1 and X_5' , R_2 and X_5' , X_1 and X_2 , X_2 and X_3 , X_2 and X_4 , X_3 and X_4 , X_1 and X_1' ,

X₂ and X_{2'}, X₃ and X_{3'} or X₄ and X_{4'} together form part of a ring structure which optionally includes at least one heteroatom selected from O, S and N and is optionally substituted;

5 m and n are independently zero or one and Y, Z and T are independently selected from the group consisting of O, S, and NR₁₀

p is 1 or 2

q is 0 or 1;

10 R₃, R'₃, R''₃, R₄, R'₄, R''₄, R₅, R'₅, R''₅, R₆, R'₆, R''₆, R₇, R₈, R₉, R'₉, R₁₀, R₁₁ and R'₁₁ are the same or different and are selected from the group consisting of hydrogen, optionally substituted alkyl which may be interrupted by one or more heteroatoms or functional groups selected from the group consisting of O, S, -N=, NR, and -(Y)_mC=(Z)(T)_n-, optionally substituted alkenyl which may be interrupted by one or more heteroatoms or functional groups selected from the group consisting of O, S, -N=, NR, and -(Y)_mC=(Z)(T)_n-, optionally substituted aryl, optionally substituted heterocyclic, optionally substituted aralkyl which may be interrupted within the alkyl moiety by one or more heteroatoms or functional groups selected from the group consisting of O, S, -N=, NR, and -(Y)_mC=(Z)(T)_n-, optionally substituted acyl and a carbohydrate moiety;

with the proviso that at least two of X₁, X₂, X₃ and X₄ are other than hydrogen or a group linked to the ring through a carbon-carbon bond; or a pharmaceutically acceptable salt thereof.

30 2. A compound as claimed in claim 1 wherein one or both of R₁ and R₂ is alkyl.

3. A compound as claimed in claim 2 wherein one or both of R₁ and R₂ is C₄₋₃₀ alkyl.

35 4. A compound as claimed in claim 3 wherein one or both of R₁ and R₂ is C₆₋₁₂ alkyl.

5. A compound as claimed in claim 4 wherein one or both of R₁ and R₂ is C₈₋₁₀ alkyl.

6. A compound as claimed in claim 1 wherein one or

both or R₁ and R₂ is aralkyl.

7. A compound as claimed in claim 6 wherein one or both R₁ and R₂ is (CH₂)_rPh where Ph is phenyl and r is an integer in the range 1 to 12 inclusive.

5 8. A compound as claimed in claim 1 wherein one or both of R₁ and R₂ is alkyl interrupted by one or more heteroatoms or functional groups selected from the group consisting of O, S, -N=, NR₇, and -(Y)_mC=(Z)(T)_n.

10 9. A compound as claimed in claim 8 wherein one or both of R₁ and R₂ is alkyl interrupted by one or more oxygen atoms.

15 10. A compound as claimed in claim 9 wherein one or both of R₁ and R₂ is CH₃(CH₂)_xO(CH₂)_yO(CH₂)_z wherein x is an integer in the range 0 to 12 inclusive and y and z are independently integers in the range 1 to 12 inclusive.

11. A compound as claimed in claim 1 wherein one or both of R₁ and R₂ is alkenyl.

20 12. A compound as claimed in claim 1 wherein R₁ and R₂ together with the nitrogen atom from which they depend form a saturated or unsaturated heterocyclic group.

13. A compound as claimed in claim 1 wherein R₁ and R₂ together with the nitrogen atom from which they depend form a lactam or cyclic imide.

25 14. A compound as claimed in any one of claims 1 to 13 wherein q is 1.

15. A compound as claimed in any one of claims 1 to 13 wherein q is 0.

30 16. A compound as claimed in any one of claims 1 to 15 wherein A is selected from the group consisting of O, S and NR₈.

17. A compound as claimed in claim 16 wherein A is O.

18. A compound as claimed in any one of claims 1 to 17 wherein X₁ is OR₃.

35 19. A compound as claimed in claim 18 wherein R₃ is hydrogen or optionally substituted acyl.

20. A compound as claimed in any one of claims 1 to 19 wherein X₂ is OR₄.

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21. A compound as claimed in claim 20 wherein R₄ is hydrogen or optionally substituted acyl.

22. A compound as claimed in any one of claims 1 to 21 wherein X₃ is OR₅.

5 23. A compound as claimed in claim 22 wherein R₅ is hydrogen or optionally substituted acyl.

24. A compound as claimed in any one of claims 1 to 14 and 16 to 23 wherein X₄ is OR₆.

10 25. A compound as claimed in claim 24 wherein R₆ is hydrogen or optionally substituted acyl.

26. A compound as claimed in any one of claims 1 to 25 wherein p is 1.

27. A compound as claimed in any one of claims 1 to 25 wherein p is 2.

15 28. A compound selected from the group consisting of:

N,N-dibutyl-S-(2,3,5,6-tetra-O-benzoyl-β-D-galactofuranosyl)sulfonamide

20 N,N-dihexyl-S-(2,3,5,6-tetra-O-acetyl-β-D-galactofuranosyl)sulfonamide

N,N-dioctyl-S-(2,3,5,6-tetra-O-benzoyl-β-D-galactofuranosyl)sulfonamide

25 N,N-didecyl-S-(2,3,5,6-tetra-O-acetyl-β-D-galactofuranosyl)sulfonamide

N,N-dibenzyl-S-(2,3,5,6-tetra-O-benzoyl-β-D-galactofuranosyl)sulfonamide

30 N,N-di(2-methoxyethoxyethyl)-S-(2,3,5,6-tetra-O-acetyl-β-D-galactofuranosyl)sulfonamide

N,N-dioctyl-S-(2,3,5,6-tetra-O-acetyl-β-D-glucofuranosyl)sulfonamide

35 N,N-dioctyl-S-(2,3-di-O-acetyl-5-O-[tert-butyldiphenylsilyl]-α-D-arabinofuranosyl)sulfonamide

N,N-dibutyl-S-(β-D-galactofuranosyl)sulfonamide

N,N-dihexyl-S-(β-D-galactofuranosyl)sulfonamide

N,N-dioctyl-S-(β-D-galactofuranosyl)sulfonamide

N,N-didecyl-S-(β-D-galactofuranosyl)sulfonamide

N,N-dibenzyl-S-(β-D-galactofuranosyl)sulfonamide

N,N-di(2-methoxyethoxyethyl)-S-(β-D-

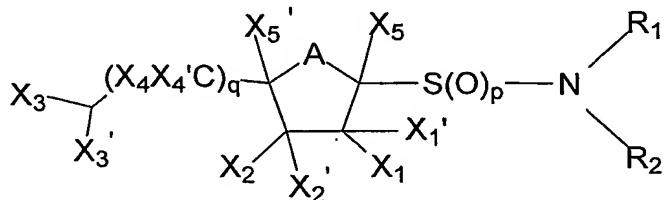
- 45 -

galactofuranosyl) sulfonamide

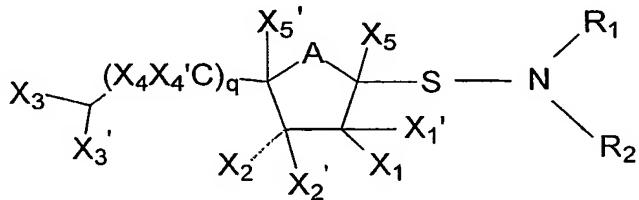
N,N-dioctyl-*S*-(β -D-glucofuranosyl) sulfonamide

29. A method of preparation of a compound of general formula (I)

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comprising reacting a compound of general formula (II):



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wherein R₁, R₂, A, p, q, X₁, X_{1'}, X₂, X_{2'}, X₃, X_{3'}, X₄, X_{4'}, X₅ and X_{5'} are as defined above;
with an oxidising agent.

30. A method for the treatment of a microbial infection comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound of general formula (I) as claimed in any one of claims 1 to 28.

31. The use of a compound of general formula (I) as claimed in any one of claims 1 to 28 in the manufacture of a medicament for use in the treatment of a microbial infection.

32. A pharmaceutical composition comprising a compound of general formula (I) as claimed in any one of claims 1 to 28 and a pharmaceutically acceptable carrier.

33. A method of killing a microorganism, comprising exposing said microorganism to a compound of general formula (I) as claimed in any one of claims 1 to 28.